The Virtual Workforce: Designing, Leading, and Optimizing

7th Annual SIOP Leading Edge Consortium

Leading Edge Consortium
October 14–15, 2011 • Louisville, Kentucky

General Chair: Kurt Kraiger
Practice Chair: Andrea Goldberg
Science Chair: Lori Foster Thompson
Research Chair: Allen Kraut

Hilton Seelbach • Louisville, Kentucky
October 14–15, 2011

FROM THE CONSORTIUM CHAIR

Welcome to Louisville and the 7th Annual SIOP Leading Edge Consortium. This event promises to continue the consortium's fine tradition of high-quality and innovative programming in an environment especially suited for interaction. This year we are pleased to present expert advice from top business leaders and scholars on the virtual workforce. I want to thank them for sharing their time and expertise with us. I would also like to thank you, the attendees, for sharing this experience. A special thank you goes to the co-chairs: Andrea Goldberg, Lori Foster Thompson, and Allen Kraut. Their help in planning this event was invaluable. Finally, I would like to thank our sponsors for making this wonderful event a reality. I hope you will find this event to be entertaining and stimulating, as well as educational.

Kurt Kraiger
LEC General Chair

To access the PowerPoint presentations for the consortium, log in to http://siop.org/lecresources/.

**To access the free WiFi, please check the signage at the entrance
to the session room for log in information.**

WHAT IS SIOP?

The Society for Industrial and Organizational Psychology is a division within APA that is also an organizational affiliate of APS. The Society's mission is to enhance human well-being and performance in organizational and work settings by promoting the science, practice, and teaching of industrial-organizational psychology. Towards this end, SIOP:

- Supports SIOP members in their efforts to study, apply, and teach the principles, findings, and methods of industrial-organizational psychology
- Provides forums for industrial-organizational psychologists to exchange research, insights, and information related to the science, practice, and teaching of industrial-organizational psychology
- Identifies opportunities for expanding and developing the science and practice of industrial-organizational psychology
- Monitors and addresses challenges to the understanding and practice of industrial-organizational psychology in organizational and work settings
- Promotes the education of current and future industrial-organizational psychologists
- Promotes public awareness of the field of industrial-organizational psychology

www.SIOP.org

SIOP WOULD LIKE TO THANK AND RECOGNIZE THE *2011* LEADING EDGE CONSORTIUM SPONSORS.

Diamond Consortium Partner
Najafi Global Mindset Institute
Thunderbird Global School of Management
Welcome Reception

Sustaining Consortium Partner
CLC Genesee
Flash Drives

Consortium Partner
Society for Human Resource Management (SHRM)
WiFi

Sirota Survey Intelligence
Continuing Education Evaluations

Northern Kentucky University MSIO Graduate Program
Coffee Break & Insert

Vantage Leadership Consulting
Coffee Break & Insert

Consortium Supporter
A&DC, Inc.
Insert

Fisher Rock Consulting
Insert

pan - A TALX Company
Insert

Shaker Consulting Group, Inc.
Insert

Wiley-Blackwell
Insert

A WORD ABOUT NETWORKING DINNERS

Networking dinners will take place Friday evening after our reception at a number of local restaurants. This optional event is an opportunity to join your colleagues for a relaxing discussion of topics of the day at a top Louisville restaurant. The sign-up process was conducted online in advance of the consortium. Several slots are still available to sign up for during the conference, but this must be done no later than noon Friday. Seating is limited, and you will be responsible for the cost of dinner. All restaurants are within walking distance.

2011 LEADING EDGE CONSORTIUM AGENDA
THE VIRTUAL WORKFORCE: DESIGNING, LEADING, AND OPTIMIZING

THURSDAY, OCTOBER 13

4:00 – 8:30 PM	Registration, Medallion BR Foyer
7:30 – 9:00 PM	Reception, Rathskeller (Presented by Najafi Global Mindset Institute, Thunderbird Global School of Management)

FRIDAY, OCTOBER 14

7:00 – 9:30 AM	Registration, Medallion BR Foyer
7:30 – 8:30 AM	Continental Breakfast, Medallion BR Foyer
8:30 – 5:30 PM	General Session, Medallion CD

8:30 – 8:45 AM   **Opening Comments: Kurt Kraiger, Consortium General Chair**

8:45 – 9:30 AM   **Keynote Address: In the Digital Era, Is "Virtual Workforce" Redundant?**
Courtney Hunt, Renaissance Strategic Solutions (RSS)

To kick off the conference, Dr. Hunt will present a high-level overview of the main characteristics of the 2.0 phase of the Digital Era and illustrate how constantly evolving technologies create a strong impetus to redefine what is considered "normal" when it comes to thinking about how work gets done. She will identify opportunities and challenges inherent in Digital Era work life, connecting them to themes and topics addressed in the sessions to follow. She will also share thoughts on other important ways in which attendees and their colleagues can explore and implement new and better ways of designing, leading, and optimizing work.

How Organizations Are Being Impacted (Allen Kraut, Research Chair, Moderator)
This module is designed to show how organization members are using social media to connect to one another in leading organizations, identify the opportunities to use social media to improve relationships and teamwork among an organization's members, describe the policies and training that are needed to maximize the use of social media, and specify the HR practices that can be influenced or changed by social media.

9:30 – 10:00 AM   **Social Business at IBM (Michael Bazigos, IBM)**
This presentation features a point of view backed by living, evolving examples from inside IBM. It aims to move skeptical traditionalists from a "Twitter is a waste of time" attitude to a better appreciation of how many non-Twitter technologies can be "mashed up" to destroy historical silo barriers between knowledge management, collaboration, and learning. (It may be interesting to motivated adopters, too!)

Examples will include a description of how "Jams" (asynchronous electronic global town hall meetings) were used to create the values of the enterprise and new go-to-market business models, and how collaborative technologies are enabling user-generated learning content that maximizes a new social metric: ROC—"return on contribution."

10:00 – 10:30 AM   **Break, Medallion BR Foyer**

10:30 – 11:00 AM   **People Analytics (Brian Welle, Google)**
Advances in communication technology and the ability to work in "real time" across distance have transformed how employees work together. Using Google as an example, Dr. Welle will discuss: (a) how employees use technology to connect in new ways, (b) the impact on Google's culture and innovation, and (c) how HR practices—from staffing to the annual survey—can capitalize on employees' social connections.

11:00 – 11:30 AM   **Collaboration in a Virtual Workforce: Strategies for the Knowledge Economy (Jacob McNulty, Orbital RPM)**
Globalization, technology advancements, and other macro trends are forcing organizations to radically shift how they operate and how they create value. This session explores strategies for success in our hypernetworked, global knowledge economy such as social and value network analysis, systems dynamics, and social business software capabilities.

11:30 – Noon   **Panel (Courtney, Michael, Brian, Jacob)**

NOON – 1:00 PM   **Lunch, Grand Ballroom (10th floor)**

Specific Applications (Andrea Goldberg, Practice Chair, Moderator)
This module covers a discussion of unified talent management, a case study demonstrating how technology enables innovation and engagement. We will also examine how technology enhances virtual team productivity across different states, countries, and continents and how to maximize telecommuting effectiveness. Also covered will be the use of technology for more effective selection and development via assessment centers, and challenges and opportunities for technology and older adults.

1:00 – 1:30 PM   **HR Challenges in a Shifting Work Environment: Leveraging Technology for Key Talent Management Initiatives (Sandra Hartog and Lynn Collins, Fenestra)**
Pressing HR needs coupled with the business environment require a focus on cost, scalability, and impact. This presentation will discuss how some market leaders have solved today's selection and development challenges through leveraging technology. Drs. Hartog and Collins will describe four cutting-edge programs developed for clients and how they have impacted key organizational goals. The presentation will end with tips for attracting, retaining, and developing today's talent.

1:30 – 2:00 PM   **Unified Talent Management: What Is It and How Do I Get Some? (Nathan Mondragon, Taleo)**
Talent management solutions started as point processes designed to address a single talent issue (e.g., reviews to manage or compare employee performance). Currently, we are in the early adoption stage of combining these point processes into a unified or whole system view. In this session we will quickly review the history of these point solutions to gain an understanding of why we are at the chasm of talent management unification. A definition of unification will be proposed, the benefits of unified TM will be presented, and a model for implementing these enterprise solutions will be discussed. Challenges to realizing unified talent management will also be presented.

2:00 – 2:30 PM   **Supporting Employee Engagement at 3M: Social Media and Virtual Methods (Kris Fenlason, 3M)**
This presentation illustrates 3M's use of virtual methods to grow employee engagement within a longstanding culture of innovation. Technology is a key ingredient in a comprehensive initiative to educate, enable, and align employees around engagement to stimulate innovation and growth. Topics discussed include social media, online collaboration, training, and toolkits.

2:30 – 3:00 PM   **Break, Medallion BR Foyer**

3:00 – 3:30 PM   **We Meet Again, Though We Have Never Met: Managing Global Teams Virtually (Sarah Johnson, CLC Genesee)**
Technology has made the business world a more connected place, allowing collaborative work by colleagues resident in different states, countries, and continents. This session will discuss where technology succeeds and where it fails to enhance team productivity, and proven tactics that build team spirit and enhance the effectiveness of teams.

3:30 – 4:00 PM   **Telecommuting: How Do We Navigate the Path to Effectiveness? (Tim Golden, Rensselaer Polytechnic Institute)**
Although telecommuting has become increasingly commonplace as a form of virtual work, we know relatively little about how to optimize this work practice for maximum effectiveness. This presentation will cover current findings from the growing body of telecommuting research and discuss ways to help improve telecommuting's success. A range of perspectives will be integrated to provide audience members a holistic view of the considerations needed to effectively implement telecommuting programs.

| 4:00 – 4:30 PM | **Challenges and Opportunities of Changing Technology for Our Aging Workforce** |
| | **(Janet Barnes-Farrell, University of Connecticut)** |

4:00 – 4:30 PM   **Challenges and Opportunities of Changing Technology for Our Aging Workforce (Janet Barnes-Farrell, University of Connecticut)**

How can organizations leverage new technologies to optimize and maintain the work effectiveness and well-being of our aging workforce? In this session, Dr. Barnes-Farrell will discuss technological innovations that offer opportunities for adults to extend their working lives in nontraditional ways. She will also highlight key challenges that must be addressed to take advantage of these opportunities.

4:30 – 5:00 PM   **Panel (Sandra, Lynn, Nathan, Kris, Sarah, Tim, and Janet)**

5:00 – 5:10 PM   **Wrap-up: Kurt Kraiger**

6:00 – 7:00 PM   **Reception, Rathskeller**

7:00 – 10:00 PM   **Networking Dinners**

SATURDAY, OCTOBER 15

7:30 – 8:30 AM   Registration/Help Desk, Medallion BR Foyer
7:30 – 8:30 AM   Continental Breakfast, Medallion BR Foyer
8:30 – 2:00 PM   General Session, Medallion Salon CD

Impediments to Technological Innovation (Lori Foster Thompson, Science Chair, Moderator)
This module features emerging technological innovations applied to the workplace including social media and those used for training and assessment. We will summarize challenges to incorporating virtual technologies into the workplace and risks and barriers to the effectiveness of technological innovation at work. We will also examine strategies for effective social media, virtual training, and assessment technology in the workplace.

8:30 – 9:00 AM   **The Transformational Organization: How the Social Media Revolution Is Changing Work (Andrea S. Goldberg, Digital Culture Consulting)**

Social media is impacting many areas considered the domain of I-O psychologists: organizational culture, selection, training, employee engagement, and leadership. This talk will explore this shift, discuss benefits and challenges, provide cases of innovative social media solutions, and share a vision of the collaborative, virtual, and open organization of the future.

9:00-9:30 AM   **Enterprise 2.0: Collaboration and Innovation in Organizational Context (Colonel Nate Allen, U.S. Army)**

The ever-increasing pace of change and complexity that 21st century organizations face demands the ability to rapidly share, make decisions, and generate new knowledge for novel challenges as they arise in the environment. This session explores the potential that social technology holds for enabling individual and organizational learning and effectiveness, cross-boundary collaboration, and innovation using front line leaders in the U.S. Army as a case example.

9:30-10:00AM   **Advancements in Training (Kevin Ford, Michigan State University)**

This talk highlights advancements in training relevant to the virtual workforce and changing nature of work. These include emerging training methods (e.g., self managed learning and guided discovery) and new training technologies (e.g., computer adaptive learning, serious games, and virtual reality). Both case studies and research evidence will be discussed.

10:00-10:30 AM   **Break, Medallion BR Foyer**

10:30-11:00 AM   **Best Practices in Developing and Implementing Technology–Enhanced Assessment (Nancy Tippins, Valtera)**

Technology is increasingly used to facilitate distribution of assessment content, ensure consistent administration and scoring, enhance the realism of the assessment, and reduce costs. Best practices in technology-enhanced assessment programs are emerging as I-O psychologists become more experienced in their use. This presentation will highlight best practices and provide examples.

11:00-Noon   **Panel (Andrea, Nate, Kevin, Nancy)**

Noon-1:00 PM	Lunch, Rathskeller

1:00 – 1:45 PM	**Closing Keynote Address: The Virtual Global Workforce: Leveraging Its Impact** **Wayne Cascio, University of Colorado** Technology has rendered geography meaningless, and as much as 30% of the work of multinationals can be done virtually. To optimize the use of the global virtual workforce, it is important to recognize its limits and possibilities. I-O psychologists play critical roles in that process, and this presentation will present alternative strategies for managing virtual workers.

1:45 – 2:00 PM	**Wrap-up/Closing Comments: Kurt Kraiger**

Thank you for joining us for the 2011 Leading Edge Consortium. We hope you will join us on October 19th and 20th for the 2012 consortium in New Orleans, LA, on the topic of sustainability.

THUNDERBIRD
Najafi Global Mindset Institute

The Preeminent Source for the Science and Practice of Global Leadership

Najafi Global Mindset Institute, a center of excellence at the #1-ranked* Thunderbird School of Global Management, is focused on assessing and developing global leadership, talent and knowledge in business, academic institutions and non-profits.

- The purpose of the Najafi Global Mindset Institute is to **define, measure** and **develop** Global Mindset for today's needs of management and leadership.

- The *Global Mindset Inventory*, validated by the Dunnette Group, is the premier assessment tool to help determine a global leader's ability to better influence individuals, groups and organizations unlike themselves.
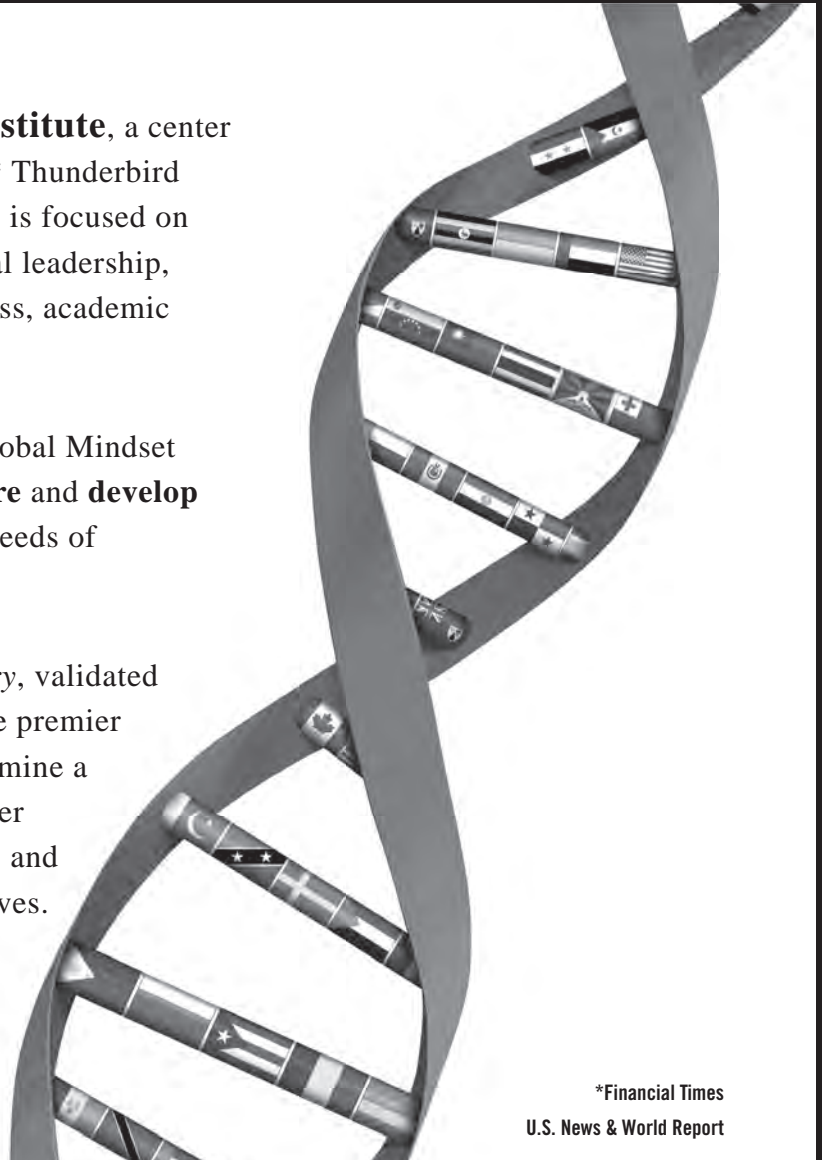
*Financial Times
U.S. News & World Report

Director - Mansour Javidan, Ph.D.; Garvin Distinguished Professor

1 Global Place; Glendale, AZ 85306-6000 USA | 602 978-7013

www.GlobalMindset.com

LEC 2011 RESOURCE GUIDE
THE VIRTUAL WORKFORCE: DESIGNING, LEADING, AND OPTIMIZING

SIOP thanks Daniele Bologna, Leann Caudill, Tom Geiger, Tara Goodlander, and Robert Mumau, Xavier University, for preparing this list. Special thanks to Morrie Mullins for his help in the production of this document.

Books and Handbooks

These references provide an overview of the virtual workplace. They offer general information on such topics as transforming, managing, and building high-performance teams in the virtual workforce.

Cascio, W. F. (2002). The virtual organization. In C. L. Cooper & W. W. Burke, *The new world of work* (pp. 203–221). Oxford, UK: Blackwell Business.

Chidambaram, L., & Zigurs, I. (2001). *Our virtual world: The transformation of work, play and life via technology*. Hershey, PA: Idea Group.

Clemons, D., & Kroth, M. (2011). *Managing the mobile workforce: Leading, building, and sustaining virtual teams*. New York, NY: McGraw-Hill.

Grantham, C. E., Ware, J., & Williamson, C. (2007). *Corporate agility: A revolutionary new model for competing in a flat world* (pp. 129–159). New York, NY: American Management Association.

Hoefling, T. (2003). *Working virtually: Managing people for successful virtual teams and organizations.* Sterling, VA: Stylus.

Lojeski, K. S. (2010). *Leading the virtual workforce: How great leaders transform organizations in the 21st century.* Hoboken, NJ: John Wiley & Sons.

Lojeski, K. S, & Reilly., R. R. (2008). *Uniting the virtual workforce: Transforming leadership and innovation in the globally integrated enterprise*. Hoboken, NJ: John Wiley & Sons.

Nemiro, J., Beyerlein, M. M., Bradley, L., & Beyerlein, S. (2008). *The handbook for high-performance virtual teams: A toolkit for collaborating across boundaries.* San Francisco, CA: Jossey-Bass.

Nilles, J. M. (1998). *Managing telework: Strategies for managing the virtual workforce*. New York, NY: Wiley.

Reeves, B., & Read, J. L. (2009). *Total engagement: Using games and virtual worlds to change the way people work and businesses compete.* Boston, MA: Harvard Business School Press.

Saunders, C. S. (2000). Virtual teams: Piecing together the puzzle. In R. W. Zmud (ed.), *Framing the domain of IT management: Projecting the future…through the past* (pp. 29–50). Cincinnati, OH: Pinnaflex Education Resources.

Schank, R. (1997). *Virtual learning: A revolutionary approach to building a highly skilled workforce.* New York, NY: McGraw-Hill.

Stanney, K. M. (2002). *Handbook of virtual environments: Design, implementation, and applications*. Mahwah, NJ: Erlbaum.

Tippins, N.T., & Adler, S. (Eds.) (2011). *Technology-enhanced assessment of talent*. San Francisco, CA: Jossey-Bass.

Weiss, J., Nolan, J., Hunsinger, J., & Trifonas, P. (2006). *The international handbook of virtual learning environments*. New York, NY: Springer.

Zemliansky, P., & St. Amant, K. (2008). *Handbook of research on virtual workplaces and the new nature of business practices*. Hershey, PA: Information Science Reference.

Assessment

These resources supply assessment and evaluation techniques of virtual leading, virtual teams, and virtual learning. They offer outcome measurement, the costs associated with the virtual workplace, and keys to effectiveness.

Algesheimer, R., Dholakia, U. M., & Gurău, C. (2011). Virtual team performance in a highly competitive environment. *Group & Organization Management, 36,* 161–190.

Chapman, D. D., & Stone, S. J. (2010). Measurement of outcomes in virtual environments. *Advances in Developing Human Resources, 12,* 665–680.

Chudoba, K. M., Wynn, E., Lu, M., & Watson-Manheim, M. B. (2005). How virtual are we? Measuring virtuality and understanding its impact in a global organization. *Information Systems Journal, 15,* 279–306.

De Pillis, E., & Furumo, K. (2007). Counting the cost of virtual teams. *Communications of the ACM, 50*, 93–95.

DeRosa, D. (2009). Virtual success: The keys to effectiveness in leading from a distance. *Leadership in Action, 28*, 9–11.

Piccolo, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly, 25,* 401–426.

Steffey, R. W., & Anantatmula, V. S. (2011). International projects proposal analysis: Risk assessment using radial maps. *Project Management Journal, 42,* 62–74.

Theoretical Approaches

Industrial and organizational psychology has historically relied on the construction and testing of theories. The resources below examine the virtual workplace from a theoretical perspective and attempt to define the virtual workplace and virtual workforce.

Ayoung Suh, Kyung-Shik Shin, Manju Ahuja, & Min Soo Kim. (2011). The influence of virtuality on social networks within and across work groups: A multilevel approach. *Journal of Management Information Systems, 28*(1), 351–386.

Bennett, E. E. The coming paradigm shift: Synthesis and future directions for virtual HRD. *Advances in Developing Human Resources, 12*(6), 728–741

Bennett, E. E., & Bierema, L. L. (2010). The ecology of virtual human resource development. *Advances in Developing Human Resources, 12*(6), 632–647.

Branson, L., Steele, N. L., & Chung-Hsien Sung. (2010). Differences in the decision making of constructively styled virtual and face-to-face teams regarding performance appraisal. *International Journal of Business & Public Administration, 7*(2), 11–22.

Cascio, W. F. (2003). How technology facilitates virtual work arrangements. In D. Stone (Ed.), *Advances in human performance and cognitive engineering research* (Vol. 3, pp. 1–12). Boston, MA: JAI Press.

Golden, T. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior, 27*, 319–340.

Golden, T., & Raghuram, S. (2010). Fostering teleworker knowledge sharing: the role of altered relational and technological interactions. *Journal of Organizational Behavior, 31*, 1061–1085.

Golden, T., Veiga, J., & Dino, R. (2008) The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology, 93,* 1412–1421.

McWhorter, R. R. (2010). Exploring the emergence of virtual human resource development. *Advances in Developing Human Resources, 12*(6), 623–631.

Mesmer-Magnus, J. R., DeChurch, L. A., Jimenez-Rodriguez, M., Wildman, J., & Shuffler, M. (2011). A meta-analytic investigation of virtuality and information sharing in teams. *Organizational Behavior & Human Decision Processes, 115*(2), 214–225.

Nunamaker, J. F., Reinig, B. A., & Briggs, R. O. (2009). Principles for effective virtual teamwork. *Communications of the ACM, 52*, 113–117.

Raghuram, S., Garud, R., Wiesenfeld, B. M., & Gupta, V. (2001). Factors contributing to virtual work adjustment. *Journal of Management, 2*, 383–405.

Staples, D. S., Hulland, J. S., & Higgins, C. A. (1999). A self-efficacy theory explanation for the management of remote workers in virtual organizations. *Organization Science, 10*, 758–776.

Badrinarayanan,V., Madhavaram, S., & Granot, E. (2011). Global virtual sales teams (gvsts): A conceptual framework of the influence of intellectual and social capital on effectiveness. *Journal of Personal Selling & Sales Management, 31*(3), 311–324.

Watson-Manheim, M. B., Chudoba, K. M., & Crowston, K. (2002). Discontinuities and continuities: a new way to understand virtual work. *Information Technology & People, 15*, 191–209.

Wiesenfeld, B. M., Raghuram, S., & Garud, R. (2001). Organizational identification among virtual workers: the role of need for affiliation and perceived work-based social support. *Journal of Management, 27*, 213–229.

Wellman, B., Salaff, J., Dimitrova, D., Garton, L., Gulia, M., & Haythornthwaite, C. (1996). Computer networks as social networks: Collaborative work, telework, and virtual community. *Annual Review of Sociology, 22*, 213–238.

Best Practices

The following resources give insight into the most effective ways to utilize a virtual workforce. These resources also highlight examples of ineffective utilization of technology in the workplace.

Berry, G. (2001). Enhancing effectiveness on virtual teams. *Journal of Business Communication, 48*, 189–206.

Cascio, W. F. (1998). On managing a virtual workplace. *The Occupational Psychologist (UK), 35*, 5–11. Reprinted in C. Woodruffe (Ed.), *Winning the talent war: A strategic approach to attracting, developing, and retaining the best people*. London: John Wiley & Sons.

Cascio, W. F. (1999). The virtual workplace: Implications for organizational behavior. In C. L. Cooper & D. Rousseau (Eds.), *Trends in organizational behavior* (pp. 1–14). New York, NY: John Wiley & Sons.

Cascio, W. F. (2000). Managing a virtual workplace. *Academy of Management Executive, 14*(3), 81–90.

Colfax, R. S., Santos, A. T., & Diego, J. (2009). Virtual leadership: A green possibility in critical times but can it really work? *Journal of International Business Research, 8*, 133–139.

Dahl, D. (2011). Want a job? Let the bidding begin. *Inc., 33*(2), 93–96.

Divine, M., Schumacher, M., & Cardinal, J. S. (2011). Learning virtual teams: How to design a set of web 2.0 tools? *International Journal of Technology Management, 55*(3), 297–308.

Goel, L., Johnson, N. A., Junglas, I., & Ives, B. (2011). From space to place: Predicting users' intentions to return to virtual worlds. *MIS Quarterly, 35*(3), 749–A5.

Golden, T. (2006). Avoiding depletion in virtual work: Telework and the intervening impact of work exhaustion on commitment and turnover intentions. *Journal of Vocational Behavior, 69*, 176–187.

Golden, T. (2007). Coworkers who telework and the impact on those in the office: understanding the implications of virtual work for coworker satisfaction and turnover intentions. *Human Relations, 60*(11), 1641–1667.

Golden, T. (2009). Applying technology to work: Toward a better understanding of telework. *Organization Management Journal, 6*, 241–250.

Golden, T., Barnes-Farrell, J., & Mascharka, P. (2009). Implications of virtual management for subordinate performance appraisals: A pair of simulation studies. *Journal of Applied Social Psychology, 39*(7), 1589–1608.

Golden, T. & Veiga, J. (2008). The impact of superior–subordinate relationships on the commitment, job satisfaction, and performance of virtual workers. *The Leadership Quarterly, 19*, 77–88.

Green, D. D., & Roberts, G. E. (2010). Personnel implications of public sector virtual organizations. *Public Personnel Management, 39*(1), 47–57.

Kimble, C. (2011). Building effective virtual teams: How to overcome the problems of trust and identity in virtual teams. *Global Business & Organizational Excellence, 30*(2), 6–15.

Leonard, B. (2011). Managing virtual teams. *HRMagazine, 56*(6), 38–42.

Mancini, D. J. (2010). Building organizational trust in virtual teams. *Journal of Behavioral Studies in Business, 2*, 1–5.

Mockaitis, A. I., Rose, E. L., & Zettinig, P. (2009). The determinants of trust in multicultural global virtual teams. *Academy of Management Annual Meeting Proceedings,1–6*.

Mondragon, N. J. (1999). Should we be driving technology solutions or just be passengers on the wild ride? A positive look at our field and technology. *The Industrial-Organizational Psychologist, 37*(1), 42–50

Mondragon, N. J. (2000). Web-based staffing solutions: What are the methods to all this madness? *Advantage Hiring Newsletter,* June 1, 2000.

Mondragon, N. J. (Chair). (2000, April). *Cutting-edge web applications: Preview and discussion of recruitment, selection, and development procedures.* Practitioner Forum presented at the 15th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Mondragon, N. J., Eriksson, D. S., & Furcon, J. (2000, April). *Implementing web-based HR systems: From recruitment to surveys and beyond.* Workshop presented at the 15th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Mondragon, N. J. (2004). How does your workflow help you hire hourly employees that stay with and contribute to your organization? *Alexander Mann Solutions.* November, 2004 Newsletter, Issue 3.

Mondragon, N. J. (2004, November 15). Guest Column: How to hire hourly employees that contribute to your retail organization. *Retail Systems Group*.

Mondragon, N.J. and Curl, M. (2009, March 10). Guest Column (Best Practices Section): Screening the best workforce talent. *Retail Information Systems News.*

Nafukho, F. M., Graham, C. M., & Muyia, H. M. A. (2010). Harnessing and optimal utilization of human capital in virtual workplace environments. *Advances in Developing Human Resources, 12*(6), 648–664.

Panteli, N., & Tucker, R. (2009). Power and trust in global virtual teams. *Communications of the ACM, 52*(12), 113–115.

Raghuram, S., Tuertscher, P., & Garud, R. (2010). Mapping the field of virtual work: A cocitation analysis. *Information Systems Research, 21*(4), 983–999.

Raghuram, S., & Wiesenfeld, B. (2004). Work–nonwork conflict and job stress among virtual workers. *Human Resource Management, 43*(2/3), 259–277.

Roberts, G. E. (2010). Personnel implications of public sector virtual organizations. *Public Personnel Management, 39*(1), 47–57.

Srivastava, S. C., & Chandra, S. (2010). Trusting the avatar: Antecedents and moderators of trust for using the virtual world. *Academy of Management Annual Meeting Proceedings, 1–6.*

Thomas, D. M., Bostrom, R. P., & Gouge, M. (2007). Making knowledge work in virtual teams. *Communications of the ACM, 50*(11), 85–90.

Turel, O., & Zhang, Y. (2010). Does virtual team composition matter? Trait and problem-solving configuration effects on team performance. *Behaviour & Information Technology, 29*(4), 363–375.

Ubell, R. (2010). Virtual TEAM learning. *T+D, 64*(8), 52–57.

Williams, L., & Kaye, B. (2011). Virtual coaching: Development at a distance. *Chief Learning Officer, 10*(8), 44–47.

Talent Management

The references below represent a snapshot of the literature. How virtual teams are impacting talent management areas, such as recruitment, as well as how recent technological advances in general are changing and effecting the way organizations operate talent management systems are discussed.

Getting in shape, (2005, September 25). *Personnel Today, 17–19.*

Web-enabled recruitment at E&Y. (2004). *Strategic HR Review, 3.*

Beisner, R. (2009). A smart balance of staff and contractors. *Business Week Online.* Retrieved from ttp://www.businessweek.com/managing/content/jun2009/ca20090616%5f21.

Bowles, J. (2010). NSFW? Shaping a professional approach to social media. *People & Strategy, 33*, 8.

Dahl, D. (2011). Want a job? Let the bidding begin. *Inc., 33*, 93–96.

Doherty, R. (2010). Making employee engagement and end-to-end practice. *Strategic HR Review, 9*, 32–37.

Fjermestad, J. (2009). Virtual leadership for a virtual workforce. *Chief Learning Officer, 8,* 36–39.

Mancuso, D. S., Chlup, D. T., & McWhorter, R. R. (2010). A study of adult learning in a virtual world. *Advances in Developing Human Resources, 12,* 681–699.

Mathews, V. (2008, July 15). Graduates of the future. *Personnel Today, 18*–22.

Mondragon, N. J., Anselmi, T., & Kobe-Cross, L. (2008, April). *Talent management and enterprise software: Trials, tribulations and trends.* Roundtable presented at the 23rd Annual Conference of the Society for Industrial and Organizational Psychology, San Francisco, CA.

Mondragon, N. J., & Rauzi, T. (2008, October). *Conversation hour on talent management and enterprise software.* Conversation Hour presented at the OD Network Annual Conference, Austin, TX.

Mondragon, N. J., Anselmi, T., & Kobe-Cross, L. (2009, April). *Talent management and enterprise software: Round 2.* Roundtable presnted at the 24th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, LA.

Mulin, C., & Reen, H. (2010). Arkadin develops employee talent through e-learning. *Strategic HR Review, 9,* 11–16.

Randall, L. L. (2008). Separating the wheat from the chaff. *HR Professional, 25*, 29–31.

Scott-Clarke, A. (2008). Ceridian. *Benefits Canada, 32,* 54–55.

Spangler, T. (2006, March). Smartest guys in the virtual room. *Baseline, 72*–73.

Stevens-Huntsman, L. (2011). Remote work force. *Smart Business Orange County, 5*, 28.

Toops, L. M. (2010). Adapt for the future. *American Agent & Broker, 82.*

Vakola, M., & Wilson, I. E. (2004). The challenge of virtual organization: Critical success factors in dealing with constant change. *Team Performance Management, 10*, 112–120.

Wang, Y., & Haggerty, N. (2009). Knowledge transfer in virtual settings: The role of individual virtual competency. *Information Systems Journal, 19,* 571–593.

Warkentin, M., & Beranek, P. M. (1999). Training to improve virtual team communication. *Information Systems Journal, 9*, 271–289.

Wen-Hao David, H., Seung-Hyun, H., Un-Yeong, P., & Jungmin Jamie, S. (2010). Managing employees' motivation, cognition, and performance in virtual workplaces: The blueprint of a game-based adaptive performance platform (GAPP). *Advances in Developing Human Resources, 12,* 700–714.

Yoon, W. Y. (2010). Systemizing virtual learning and technologies by managing organizational competency and talents. *Advances in Developing Human Resources, 12,* 715–727.

Zelenskaya, K. & Singh, N. (2011). Exploring virtual recruiting from employers' perspective using "second life." *Journal of Human Resources in Hospitality & Tourism, 10,* 117–128.

Training

Both the impact of virtual environments on training possibilities as well as the need for training of how to function within virtual teams are represented and discussed in this brief collection of articles and literature.

Blümel, E., Termath, W., & Haase, T. (2009). Virtual reality platforms for education and training in industry. *International Journal of Advanced Corporate Learning, 2,* 4–12.

Klomp, R. W.. Spitalnick, J. S., & Reissman, D. B. (2011). Virtual classroom immersion training. *T+D, 65*, 38–43.

Kopp, G. & Burkle, M. (2010). Using second life for just-in-time training: Building teaching frameworks in virtual worlds. *International Journal of Advanced Corporate Learning, 3,* 19–25.

Lloyd, J., Persaud, N. V., & Powell, T. E. (2009). Equivalence of real-world and virtual-reality route learning: A pilot study. *Cyberpsychology & Behavior, 12*, 423–427.

Rosen, B., Furst, S., & Blackburn, R (2006). Training for virtual teams: an investigation of current practices and future needs. *Human Resource Management, 45,* 229–247.

Schumacher, T., & Poehler, L. (2009). The virtual team challenge: Is it time for training? *International Journal of Innovation and Technology Management, 6,* 169–181.

Tichon, J. G. (2007). Using presence to improve a virtual training environment. *Cyberpsychology and Behavior, 10*, 781–788.

Ubell, R. (2010). Virtual team leading. *T+D, 64*, 52–57.

Weinstein, M. (2009). Training products and services. *Training, 46*, 2.

Ethics

The following articles focus on ethical issues that have come to light with the rise of the virtual workforce. Topics include issues of leadership, team building, trust, and general management within a virtual context.

Ariss, S., Nykodym, N., & Cole-Laramore, A. A. (2002). Trust and technology in the virtual organization. *SAM Advanced Management Journal, 67*(4), 22–25.

Kasper-Fuehrera, E. C., & Ashkanasy, N. M. (2001). Communication trustworthiness and building trust in interorganizational virtual organizations. *Journal of Management, 27*, 235–254.

Stoney Adler, G., Schminke, M., Noel, T. W., & Kuenzi, M. (2008). Employee reactions to internet monitoring: The moderating role of ethical orientation. *Journal of Business Ethics, 80*, 481–498.

Aging Workforce Technology

This section highlights articles pertaining to the aging workforce and their ability to adapt to rapid advancements in technology. Issues that are covered include older adults' perceptions of personal use of technology, the development of user-friendly interfaces, and general theory on management decisions regarding age differences and technology.

Gregor, P., Newell, A.F., & Zajicek, M. (2002). Designing for dynamic diversity: Interfaces for older people. *Assets 2002: Proceedings of the Fifth International Conference on Assistive Technologies,* 22–25.

Morris, M.G., & Venkatesh, V. (2000). Age differences in technology adoption decisions: implications for a changing work force. *Personnel Psychology, 53*(2), 375–403.

Morris, M.G., Venkatesh, V., & Ackerman, P.L. (2005). Gender and age differences in employee decisions about new technology: An extension to the theory of planned behavior. *Engineering Management, 52*(1), 69–84.

Selwyn, N., Gorard, S., Furlong, J., & Madden, L. (2003). Older adults' use of information and communications technology in everyday life. *Ageing and Society, 23,* 561–582.

Virtual Teams

These resources cover management decisions in the context of virtual teams. Topics include similarities and differences between virtual and nonvirtual teams, management strategies that are ideal within virtual teams, and general overviews of the history and importance of virtual teams.

Algesheimer, R., Dholakia, U. M., & Gurău, C. (2011). Virtual team performance in a highly competitive environment. *Group & Organization Management, 36*(2), 161–190.

Bergiel, B. J., Bergiel, E. B., & Balsmeier, P. W. (2008). Nature of virtual teams: A summary of their advantages and disadvantages. *Management Research News, 31*(2), 99–110.

Cascio, W. F., & Shurygailo, S. (2003). E-leadership in virtual teams. *Organizational Dynamics, 31*, 362–375.

Cheshin, A., Rafaeli, A., & Bos, N. (2011). Anger and happiness in virtual teams: Emotional influences of text and behavior on others' affect in the absence of non-verbal cues. *Organizational Behavior and Human Decision Processes, 116*(1), 2–16.

Cordery, J., Soo, C., Kirkman, B., Mathieu, J. E., & Rosen, B. (2009). Leading parallel global virtual teams: Impossible challenge or rewarding opportunity? *Organizational Dynamics, 38*, 204–216.

Driskell, J., Radtke, P., & Salas, E. (2003). Virtual teams: Effects of technological mediation on team performance. *Group Dynamics: Theory, Research, and Practice, 7*, 297–323.

Duarte, D. L., & Snyder, N. T. (1990). Mastering virtual teams: Strategies, tools, and techniques that succeed. San Francisco, CA: Jossey-Bass.

Hertel, G., Geister, S., & Konradt, U. (2005). Managing virtual teams: A review of current empirical research. *Human Resource Management Review, 15*, 69–95.

Hertel, G., Konradt, U., & Orlikowski, B. (2004). Managing distance by interdependence: Goal setting, task interdependence, and team-based rewards in virtual teams. *European Journal of Work and Organizational Psychology, 13,* 1–28.

Chang, H. H., Chuang, S-S., & Chao, S. H. (2011). Determinants of cultural adaptation, communication quality, and trust in virtual teams' performance. *Total Quality Management & Business Excellence, 22*(3), 305–329.

Jarvenpaa, S. L., Knoll, K., & Leidner, D. E. (1998). Is anybody out there? Antecedents of trust in global virtual teams. *Journal of Management Information Systems, 14*(4), 29–64.

Kirkman, B. & Mathieu, J. E. (2005). The dimensions and antecedents of team virtuality. *Journal of Management, 31*, 700–718.

Leonard, D., Brands P., Edmondson, A., & J. Fenwick. 1998. Virtual teams: Using communications technology to manage geographically dispersed development groups. In S. Bradley, & R. Nolan (Eds.), *Sense and respond: Capturing value in the network era* (285–298). Cambridge, MA: Harvard Business School Press.

Lipnack, J., & Stamps, J. (1997). *Virtual teams: Reaching across space, time and organizations with technology.* New York, NY: John Wiley & Sons.

Lyons, R., Priest, H. A., Wildman, J. L., Salas, E., & Carnegie, D. (2009). Managing teams in avirtual world: Strategies for team leaders. *Ergonomics in Design, 17,* 8–13.

Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management, 30*(6), 805–835.

Maznevski, M., & Chudoba, K. (2000). Bridging space over time: Global virtual team dynamics and effectiveness. *Organizational Science, 11*(5), 473–492.

Powell, A., Piccoli, B., & Ives, B. (2004). Virtual teams: a review of current literature and directions for future research. *The DATA BASE for Advances in Information Systems, 35*(1), 6–36.

Purvanova, R. K., & Bono, J. E. (2009). Transformational leadership in context: Face-to-face and virtual teams. *Leadership Quarterly, 20,* 343–357.

Thomas, D. M., & Bostrom, R. P. (2010). Vital signs for virtual teams: An empirically developed trigger model for technology adaptation interventions. *MIS Quarterly, 34,* 115–142.

Townsend, A., DeMarie, A. M., & Hendrickson, A. R. (1998). Virtual teams: Technology and the workplace of the future. *Academy of Management Executive, 12*(3), 17–29.

Webster, J., & Wong, W. K. P. (2008). Comparing traditional and virtual group forms: Identity,communication and trust in naturally occurring project teams. *International Journal of Human Resource Management, 19,* 41–62.

Social Media

In these resources, researchers describe how social media influences the use of virtual work and workforces. The articles discuss how social media and technology are influencing the workplace today and will continue to influence the workforce in the future.

Freishtat, R. L., & Sandlin, J. A. (2010). Shaping youth discourse about technology: Technological colonization, manifest destiny, and the frontier myth in Facebook's public pedagogy. *Educational Studies: Journal of the American Educational Studies Association, 46,* 503–523.

Hampton, K. N., Sessions, L. F., & Her, E. J. (2011). Core networks, social isolation, and new media: How internet and mobile phone use is related to network size and diversity. Information, *Communication & Society, 14,* 130–155.

Kaplan, A. M., & Haenlein, M. (2010). Users of the world unite! The challenges and opportunities of social media. *Business Horizons, 53*, 59–68.

Mishra, G., Makkar, T., Gupta, A., Vaidyanathan, M., Sarin, S., & Bajaj, G. (2010). New media experiences: Dealing with the game changer. *Vikalpa, 35*, 91–97.

Diversity

These articles present the challenges of diversity in the workforce today, and how they impact the use of virtual work. These articles discuss how organizations can lead in virtual workforces, examine performance ratings for virtual teams, and the impact of globalization on diverse virtual workforces.

Chudoba, K. M., Wynn, E., Lu, M., & Watson-Manheim, M. B. (2005). How virtual are we? Measuring virtuality and understanding its impact in a global organization. *Information Systems Journal, 15,* 279–306.

DeRosa, D. M., Hantula, D. A., Kock, N., & D'Arcy, J. (2004). Trust and Leadership in virtual teamwork: A media naturalness perspective. *Human Resource Management, 43,* 219–232.

Harvey, M., Novicevic, M. M., & Garrison, G. (2004). Challenges to staffing global virtual teams. *Human Resource Management Review, 14,* 275–294.

Haythornthwaite, C., & Kendall, L. (2010). Internet and community. *American Behavioral Scientist, 53,* 1083–1094.

Malhotra, A., Majchrzak, A., & Rosen, B. (2007). Leading virtual teams. *The Academy of Management Perspectives, 21*(1), 60–70.

Peters, L., & Karren, R. J. (2009). An examination of the roles of trust and functional diversity on virtual team performance ratings. *Group & Organization Management, 34,* 479–504.

Shachaf, P. (2008). Cultural diversity and information and communication technology impacts on global virtual teams: An exploratory study. *Information & Management, 45*(2), 131–142.

Staples, D. S., & Zhao, L. (2006). The effects of cultural diversity in virtual teams versus face-to-face teams. *Group Decision and Negotiation, 15*, 389–406.

Research

These references examine the current research and practices of virtual work and provide future directions on research in human resource development and virtual teams and learning.

Bennett, E. E. (2010). The coming paradigm shift: Synthesis and future directions for virtual HRD. *Advances in Developing Human Resources, 12,* 728–741.

Chapman, D. D., & Stone, S. J. (2010). Measurement of outcomes in virtual environments. *Advances in Developing Human Resources, 12*(6), 665–680.

Clear, T., & MacDonell, S. G. (2011). Understanding technology use in global virtual teams: Research methodologies and methods. *Information & Software Technology, 53*(9), 994–1011.

Golden, T., & Veiga, J. (2005). The impact of extent of telecommuting on job satisfaction: Resolving inconsistent findings. *Journal of Management, 31,* 301–318.

Golden, T., Veiga, J., & Simsek, Z. (2006). Telecommuting's differential impact on work–family conflict: Is there no place like home? *Journal of Applied Psychology, 91,* 1340–1350.

Martins, L. L., Gilson, L. L., & Maynard, M. T. (2004). Virtual teams: What do we know and where do we go from here? *Journal of Management, 30,* 805–835.

McWhorter, R. R. (2010). Exploring the emergence of virtual human resource development. *Advances in Developing Human Resources, 12,* 623–631.

Piccolo, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly, 25,* 401–426.

Powell, A., Piccoli, G., & Ives, B. (2004). Virtual teams: A review of current literature and directions for future research. *DATA BASE for Advances in Information Systems, 35,* 6–36.

Raghuram, S., Tuertscher, P., & Garud, R. (2010). Mapping the field of virtual work: A cocitation analysis. *Information Systems Research, 21,* 983–999.

Rosen, B., Furst, S., & Blackburn, R. (2006). Training for virtual teams: An investigation of current practices and future needs. *Human Resource Management, 45,* 229–247.

Wang, Y., & Haggerty, N. (2011). Individual virtual competence and its influence on work outcomes. *Journal of Management Information Systems, 27,* 299–334.

Feng, X., & Yue, W. (2011). An empirical research on exploring information sharing behaviour based on virtual teams. *International Journal of Networking & Virtual Organisations, 8*(3), 292–302.

Web Sites

This is a list of Web sites from professional organizations, universities, and research organizations that include creating, assessing, defining, and empowering a virtual workforce.

Advancing Women: Women and Workplace Strategies: www.advancingwomen.com/workplace/virtual_workplace.html

Colorado State University: The Virtual Workforce Assessment Network: www.csuvwan.org/

Contact Professional: www.contactprofessional.com/topics/remote-agents/the-ins-and-outs-creating-and-empowering-a-virtual-3050

Forbes.com: www.forbes.com/2006/07/26/leadership-fiveways-management-cx_tw_0727virtual.html

HRMBusiness: www.hrmbusiness.com/2011/02/virtual-workforce-and-hr-professionals.html

Management Site: www.managementsite.com/261/The-virtual-workplace-and-the-company-culture.aspx

Nemertes Research: www.nemertes.com/managing/defining_the_virtual_workforce

Recruiter.com: www.recruiter.com/articles/top-sites-for-virtual-recruiters/

Society for Industrial Organizational Psychology: www.siop.org

Society for Human Resource Management: www.shrm.org/

Virtual Career Network: www.vcn.org/

Virtual Organization: www.seanet.com/~daveg/ltv.htm

Keep Up With SIOP!

Interact online and receive timely information about news and upcoming events.

www.siop.org/socialmedia.aspx

Thank you to the restaurants hosting the networking dinners.

Please be sure to sign up for your dinner reservation on the board near registration by Friday at noon!

Future SIOP Annual Conferences Locations and Dates

2012 April 26-28 San Diego, California at the Manchester Grand Hyatt San Diego

2013 April 11-13 Houston, Texas at the Hilton Americas-Houston

2014 May 15-17   Honolulu, Hawaii at the Hilton Hawaiian Villages

2015 April 23-25 Philadelphia, Pennsylvania at the Philadelphia Marriott Downtown

2016 April 14-16 Anaheim, California at the Hilton

The Society for Industrial and Organizational Psychology
440 East Poe Road, Suite 101
Bowling Green, OH 43402

419-353-0032 (phone)   419-352-2645 (fax)

www.SIOP.org